AMENDMENTS TO THE CLAIMS

1-14   (Cancelled)

15.   (Currently Amended) A multi-service monitoring system comprising:

computer server systems having a cluster of application servers communicatively

coupled on a computer network to serve applications over the computer

network to a plurality of computerclients client systems, each of the

application servers comprising a plurality of server nodes, wherein a

computer server system having a processor and a storage medium

coupled with the processor, the computer system including an

application server having[[;]]:

an administration service to generate a plurality of runtime management beans

("MBeans") on each of the server nodes and to associate each of the

runtime MBeans with specified server node resources, each of the

runtime MBeans collecting and reporting monitoring data for its

associated resource of resources via an MBean server; and

a monitor service in communication with the administration service, the monitor

service to generate monitor MBeans corresponding to selected runtime

MBeans, wherein each of the monitor MBeans corresponds to at least

one of the runtime MBeans, wherein each of the monitor MBean having

a resource identifier to identify its corresponding runtime MBean and an

associated resource being monitored by the runtime MBean. the monitor

MBeans arranged in a hierarchical tree structure, each of the monitor

MBeans associated with at least one of the runtime MBeans, each of the

monitor MBeans to receive the monitoring data from its associated

corresponding runtime MBean.

16. (Original)   The system as in claim 15 further comprising:

a notification service to generate notifications in response to certain specified events

associated with certain resources of certain MBeans, the notification service

distributing the notifications across all, or a subset of, the server nodes of the cluster.

17. (Original)   The system as in claim 15 further comprising:

an administration adapter service include a convenience interface to provide access

to one or more of the MBean servers from a remote client.

18. (Original)   The system as in claim 17 wherein the administration adapter service

further comprises:

a swing-based graphical user interface ("GUI") coupled to the convenience interface

and the hierarchical tree structure, the swing-based GUI to represent the

management functionality of the monitoring architecture to a network

administrator or end user.

19. (Original)   The system as in claim 17 wherein the administrator adapter service

comprises a shell command interface comprising a plurality of shell commands for

controlling monitor configuration data and monitor resource data.

20. (Original)   The system as in claim 15 wherein the administration service

generates standard runtime MBeans and specific runtime MBeans, the standard

runtime MBeans providing one or more predefined standard functions for their

associated resources, and the specific MBeans providing one or more resource-

specific functions for their associated resources.

21. (Original)   The system as in claim 20 wherein one of the standard functions

comprises starting and stopping of the resource.

22. (Original)   The system as in claim 20 wherein one of the standard functions

comprises getting and/or setting properties associated with the resource.

23.   (Original)   The system as in claim 20 wherein each resource having a specific

MBean associated therewith also has a standard MBean associated therewith.

24.   (Original)   The system as in claim 15 wherein each of the application servers

comprises a plurality of server nodes and at least one dispatcher node, and wherein

the administration service generate runtime MBeans on each of theserver nodes and

the one or more dispatcher nodes and associates each of the runtime MBeans with

specified server node and/or dispatcher resources, each of the runtime MBeans

collecting and reporting monitoring data for its associated resource via an MBean

server.

25.   (Original)   The system as in claim 15 wherein one of the specified events

comprises a value associated with a resource reaching a first threshold value.

26.   (Original)   The system as in claim 25 wherein one of the specified events

comprises the value associated with the resource reaching a second threshold value,

the second threshold value representing a critical resource value.

27.   (Original)   The system as in claim 15 wherein one of the specified events

comprises a resource becoming unavailable.

28-29 (Cancelled)

30.   (New)   A method comprising:

communicatively coupling a cluster of application servers on a network to serve

applications over the network to a plurality of clients, each of the

application servers comprising a plurality of server nodes;

generating a plurality of runtime management beans ("MBeans") on each of the

server nodes and to associate each of the runtime MBeans with specified

server node resources, each of the runtime MBeans collecting and

reporting monitoring data for its associated resource of resources via an

MBean server; and

generating monitor MBeans corresponding to selected runtime MBeans, wherein

each of the monitor MBeans corresponds to at least one of the runtime

MBeans, wherein each of the monitor MBean having a resource

identifier to identify its corresponding runtime MBean and an associated

resource being monitored by the runtime MBean, the monitor MBeans

arranged in a hierarchical tree structure, each of the monitor MBeans to

receive the monitoring data from its corresponding runtime MBean.

31.   (New)   The method as in claim 30 further comprising:

generating notifications in response to certain specified events associated with

certain resources of certain MBeans, the notification service distributing the

notifications across all, or a subset of, the server nodes of the cluster.

32.   (New)   The method as in claim 31 further comprising:

providing access to one or more of the MBean servers from a remote client via an

administration adapter service include a convenience interface.

33.   (New)   The method as in claim 32 wherein the administration adapter service further

comprises:

a swing-based graphical user interface ("GUI") coupled to the convenience interface

and the hierarchical tree structure, the swing-based GUI to represent the

management functionality of the monitoring architecture to a network

administrator or end user.

34.   (New)   The method as in claim 32 wherein the administrator adapter service

comprises a shell command interface comprising a plurality of shell commands for

controlling monitor configuration data and monitor resource data.

35. (New) The method as in claim 30 further comprising generating standard runtime MBeans and specific runtime MBeans, the standard runtime MBeans providing one or more predefined standard functions for their associated resources, and the specific MBeans providing one or more resource-specific functions for their associated resources.

36. (New) A machine-readable storage medium comprising instructions which, when executed, cause a machine to:

communicatively couple a cluster of application servers on a network to serve applications over the network to a plurality of clients, each of the application servers comprising a plurality of server nodes;

generate a plurality of runtime management beans ("MBeans") on each of the server nodes and to associate each of the runtime MBeans with specified server node resources, each of the runtime MBeans collecting and reporting monitoring data for its associated resource of resources via an MBean server; and

generate monitor MBeans corresponding to selected runtime MBeans, wherein each of the monitor MBeans corresponds to at least one of the runtime MBeans, wherein each of the monitor MBean having a resource identifier to identify its corresponding runtime MBean and an associated resource being monitored by the runtime MBean, the monitor MBeans arranged in a hierarchical tree structure, each of the monitor MBeans to receive the monitoring data from its corresponding runtime MBean.

37. (New) The machine-readable medium of claim 36 wherein the instructions which, when executed, further cause the machine to:

generate notifications in response to certain specified events associated with certain resources of certain MBeans, the notification service distributing the notifications across all, or a subset of, the server nodes of the cluster.

38.   (New)   The machine-readable medium of claim 36 wherein the instructions which, when executed, further cause the machine to:

provide access to one or more of the MBean servers from a remote client via an administration adapter service include a convenience interface.

39.   (New)   The machine-readable medium of claim 38 wherein the administrator adapter service comprises:

a swing-based graphical user interface ("GUI") coupled to the convenience interface and the hierarchical tree structure, the swing-based GUI to represent the management functionality of the monitoring architecture to a network administrator or end user.

40.   (New)   The machine-readable medium of claim 38 wherein the administrator adapter service comprises a shell command interface comprising a plurality of shell commands for controlling monitor configuration data and monitor resource data.

41.   (New)   The machine-readable medium of claim 36 wherein the instructions which, when executed, further cause the machine to generate standard runtime MBeans and specific runtime MBeans, the standard runtime MBeans providing one or more predefined standard functions for their associated resources, and the specific MBeans providing one or more resource-specific functions for their associated resources.